



State of Utah
Department of Environmental Quality

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Utah Toxic Release Inventory
Reporting Year 2006
Data Summary Report

Division of Environmental Response and Remediation
March 2008



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EXECUTIVE SUMMARY

Introduction

Under Section 313 of the federal Emergency Planning and Community Right-to-Know Act (ECPRA) the Toxic Release Inventory (TRI) is a compilation of data submitted by certain facilities subject to the reporting requirements of EPCRA. TRI data provides select information concerning releases and transfers of a list of chemicals defined by the statute into the environment and of transfers of chemicals to other off-site facilities for final disposition. Section 313 requires a facility to submit TRI data to the U.S. Environmental Protection Agency and the State Hazardous Chemical Emergency Response Commission (SERC). This report is a summary of the data submitted to the Utah Department of Environmental Quality (UDEQ) for calendar year 2006. TRI information includes only selected industrial sectors using larger volumes of certain listed chemicals. Therefore, TRI data may only include a relatively small portion of all chemical releases of environmental significance. TRI data can be used to provide basic information on the types and volumes of waste and emissions at a facility, but the data must be used with other concentration, migration, environmental target, and exposure information to assess a level of human health or environmental risk.

Utah participates in the State Data Exchange Network-National Environment Information Exchange Network enabling UDERR to receive TRI data directly from EPA through EPA's electronic TRI data submission system. The duplication of some data received from facilities is inherent of the reporting process.¹

Beginning in 2002, EPA made preliminary TRI data available via the internet. Persons interested may retrieve data using a facility identification based criteria. State fact sheets are currently available on the EPA website for reporting years 2002 through 2006. A state fact sheet presents a summary of Utah specific TRI release data from a national perspective.

In a comparison to the EPA Fact Sheets, multi-year trend data presented in this Utah 2006 Report Year TRI Data Summary Report will reflect release data for each year beginning 2002 through 2006 (and possibly others) that may be 5-14% higher than EPA data for any given year respectively. UDEQ anticipates that the Utah 2006 reporting year data will be consistent with this discrepancy. It is traditionally the practice of EPA to "freeze" TRI data several months after the annual submission deadline of July 1 each year. Information offered in this report reflects a presentation of the data at the time it was frozen.

2006 TRI Summary

For reporting year 2006, 198 facilities filed a total of 876 chemical forms under the federal TRI program. A total of 142 unique chemicals or chemical categories were reported.

¹ 2006 State Fact Sheet.

Total Releases

The on-site and off-site total combined TRI release amount reported by facilities in Utah for reporting year 2006 was 166.8 million pounds. Total releases decreased by 21.9 million pounds from 190.8 million pounds in 2005. The difference represents an overall statewide decrease of 11.3%.

Releases to Air

The total TRI release to air reported by Utah facilities in 2006 was 9.9 million pounds. The total release to air amount reported in 2005 was 10.0 million pounds. This is a decrease of about 1% for 2006.

Releases to air reported by U.S. Magnesium represent 44.2% of total quantity of releases to air reported by all facilities in Utah.

Releases to Land

The TRI total chemical releases to land reported in Utah were 139.2 million pounds in 2006. Releases to land reported in 2005 totaled 162.1 million pounds. This change represents a 14.1% decrease for all releases to land reported by Utah facilities. The combined releases reported by the 3 Kennecott facilities for releases to land in 2006 totaled 119.5 million pounds. Kennecott releases to land by the 3 Kennecott facilities reported in 2005 totaled 127.0 million pounds. The difference of 7.5 million pounds reflects a 5.9% decrease for Kennecott facilities in 2006.

Releases to Surface Water

TRI chemical releases to surface water in Utah in 2006 totaled slightly less than 101,000 pounds. Releases in 2005 were reported at 55,000 pounds. This is an increase of 84.6% for 2006.

Chevron Products Company reported a release of approximately 85,500 pounds (mostly for nitrate compounds), while Kennecott facilities reported approximately 14,600 pounds for various TRI chemicals. The sum of these two facility reports make up 93.2% of the total statewide quantities reported released to surface waters in 2006.

Transfers to POTWs

Publicly Owned Treatment Works (POTWs) are publicly owned wastewater treatment plants. Transfers to POTWs totaled 1.0 million pounds in 2006. The amounts reported transferred to POTWs in 2005 were 1.2 million pounds. 2006 shows a decrease of almost 16%. Nitrates constitute slightly less than 81% of the total chemicals released. The remaining percentage is comprised of a variety of organic and inorganic chemicals.

TRI-reported releases to POTWs do not include information concerning the rate of release or concentrations of chemicals in the release. However, State and Federal law requires industrial facilities with wastewater flows exceeding federally established chemical concentrations to operate industrial pretreatment equipment to reduce such concentrations below harmful levels before discharging to the POTWs.

Other Off-Site Transfers

Transfers of TRI chemicals to “other off-site” locations are transfers to facilities other than POTWs. Often these facilities include chemical recyclers and waste disposal sites. The amount of Other Off-Site Transfers reported in 2006 was 21.2 million pounds. Other Off-Site transfers in 2005 were reported at 20.0 million pounds. The amount reported in 2006 increased by 6.3% over the previous year.

Persistent Bioaccumulative Toxic (PBT) Chemicals – Dioxin & Dioxin-Like Compounds

For 2006, the reported releases of dioxin and dioxin-like compounds were just below 4,397 grams, while the amount reported in 2005 was 4,351 grams. The change of 46 grams shows a 1.1% increase in 2006. A comparison between total releases to air and land indicates only 1.3% of the total release amount reported was released to air while 98.7% was released to land. Releases to land remained the same from last year while releases to air increased by 46 grams.

In 2006 U.S. Magnesium reported slightly less than 4,336 grams of dioxin and dioxin-like chemicals; this amount constitutes 98.6% of the total quantity reported.

INTRODUCTION

What is the Toxic Release Inventory?

The Toxic Release Inventory (TRI) is a database providing information about releases of certain TRI program specific chemicals and chemical categories into the environment, and transfers to off-site facilities by facilities that manufacture, process, or otherwise use Section 313 chemicals. Nationally, a facility subject to EPCRA reports TRI information annually to the U.S. Environmental Protection Agency (EPA) and to the state in which it is located. The Utah Hazardous Chemical Emergency Response Commission (more commonly known as the State Emergency Response Commission - SERC) was established under Utah Statute §63-5-5. UDEQ acts on behalf of the SERC to administer the EPCRA program in Utah and manage all associated data submitted by facilities subject to the reporting requirements of EPCRA. TRI data must be submitted annually by July 1 for January through December interval of the previous calendar year. This report is a summary of data submitted to the Utah Department of Environmental Quality for EPCRA reporting year 2006.

Who Must Report to TRI?

A facility must report to TRI if it:

- Conducts operations within specified Standard Industrial Classification (SIC) Codes;
- Has 10 or more full-time employees (or equivalent); and
- Manufactures or processes more than 25,000 pounds or uses more than 10,000 pounds of any TRI listed chemical during the calendar year.

TRI data only includes reports from manufacturing facilities, federally owned facilities, coal mining, metal mining, electrical generation facilities combusting coal or oil, hazardous waste disposal, wholesale bulk petroleum distribution, chemical wholesale distribution, and solvent recycling.

What Type of Information Must Be Reported?

A facility must report the:

- Amount of each listed chemical released to the air, water, or soil;
- Amount of each listed chemical transferred off-site or sent to a wastewater treatment plant;
- Amount of each listed chemical recycled, treated, or disposed; and
- Facility's pollution reduction activities.

What Types of Chemicals are Subject to Reporting?

Over 600 chemicals and chemical categories were included in the reporting list for 2006, based on acute or chronic human health or environmental effects. Pursuant to the federal EPA TRI program, no new chemicals were added to the list for reporting year 2006. TRI program specific chemicals are listed under the Code of Federal Regulations 40 CFR part 355. A copy of the current CFR is available to download from the Internet at www.gpoaccess.gov/index.html. A list

of chemicals subject to reporting under TRI for reporting years 1999 through 2006 are currently available on the EPA website <http://www.epa.gov/tri/chemical/index.htm> (see TRI Chemical Lists). Changes promulgated by EPA to the TRI program, i.e., additions or deletions of TRI program chemicals or chemical categories, are updated annually in the Code of Federal Regulations.

What Are the Benefits and Uses of TRI Data?

TRI data can be used in a variety of ways:

- The public can use TRI data to identify potential concerns.
- Governments can use TRI data to evaluate environmental programs and establish regulatory priorities.
- The data can be used to provide basic information on the types and volumes of waste being generated or managed at a facility and, in conjunction with other data, can be utilized to study and identify potential hazards to the public health or environment.
- Industry can use TRI data to establish release reduction targets and document release reduction progress.

What Are the Limitations of the Data?

- *Not All Toxic Releases/Transfers Are Reported.* Only a few sectors of industry are currently required to submit TRI reports. Thus, only a portion of all chemical releases or transfers is included in the inventory. Additionally, the list of chemicals for which reporting is required is not inclusive of all chemicals known to have significant public health or environmental impact.
- *Reported Release/Transfer Totals Usually Are Based on Estimations Only.* No special monitoring is required to calculate emission or transfer totals. Reported data is often based on estimations.
- *Smaller Release Totals Are Reported as Ranges, Not Exact Numbers.* If a chemical release or transfer estimate was below 1,000 pounds, companies were allowed to report ranges of 1-10, 11-499, and 500-999 pounds. In such cases, staff entered the mid-point of the range in the State database. These estimations may, therefore, be above or below the actual figure.
- *TRI Statewide Totals Cannot Be Compared Easily From Year to Year.* The TRI list of chemicals requiring reporting and methods requiring the estimating of emissions have changed significantly through the history of TRI reporting program. Facilities may meet the TRI reporting requirements and submit TRI reports for some years and not others. These changes make accurate multi-year comparisons of statewide release or transfer totals very difficult.

What Cautions Should Be Used in Interpreting TRI Data?

- *TRI Reports Releases, Not Exposures.* Release estimates alone are not sufficient to determine exposure, risk of exposure, or calculate potential adverse health or environmental affects.
- *TRI Does Not Report Concentrations.* TRI emission totals do not include information on the concentration of chemicals in air, water, or wastes placed on land. A large release may be a large volume at low concentration.
- *TRI Releases Are Often Permitted by State or Federal Law.* TRI releases are often permitted by state or federal environmental agencies after an evaluation has concluded the release will not adversely affect human health or the environment.

How Can the Public Obtain TRI Information?

Extracts of TRI information can be obtained from several sources:

- Computer summaries of Utah TRI information or copies of original TRI submissions can be obtained by submitting a written request to:

Utah Division of Environmental Response and Remediation
168 North 1950 West, 1st Floor
P.O. Box 14840
Salt Lake City, Utah 84114-4840
Or email the request to eqderrtier2@utah.gov

A customer may choose to have pages copied by a DERR employee at a cost of \$0.25 per single-sided page. Pages copied by the customer are \$0.05 per single-sided page with the first 10 pages free. Specialized computer summaries are available for a fee charged at an hourly rate. Most reports require less than one hour's time to create a specialized summary. Please call UDEQ (801-536-4100) for current hourly rates.

The EPA offers access to TRI data on the World Wide Web at the following two websites:

- www.epa.gov/tri
- www.epa.gov/enviro/html/tris

EPA provides a variety of information about the Emergency Planning and Community Right-To-Know Act at the following website:

- www.epa.gov/Region8/toxics_pesticides/epcra/epcra.html

FACILITY OVERVIEW

Number of Reporting Facilities

For calendar year 2006, 198 Utah facilities filed a total of 876 TRI form submissions. Reporting year 2006 submissions reflect a total of 142 unique TRI-listed chemicals; this number is up from 110 reported in 2005. In comparison with 2005 data, the number of facilities that submitted under TRI decreased by 1 and the total number of Forms reports increased by 57.

Figure 1 shows the annual trend in the number of facilities and number of chemical reports. One-hundred thirty-four facilities, 65% of all facilities that reported in Utah, are located along the Wasatch Front.²

Quantity of Utah TRI Submissions 1988-2006

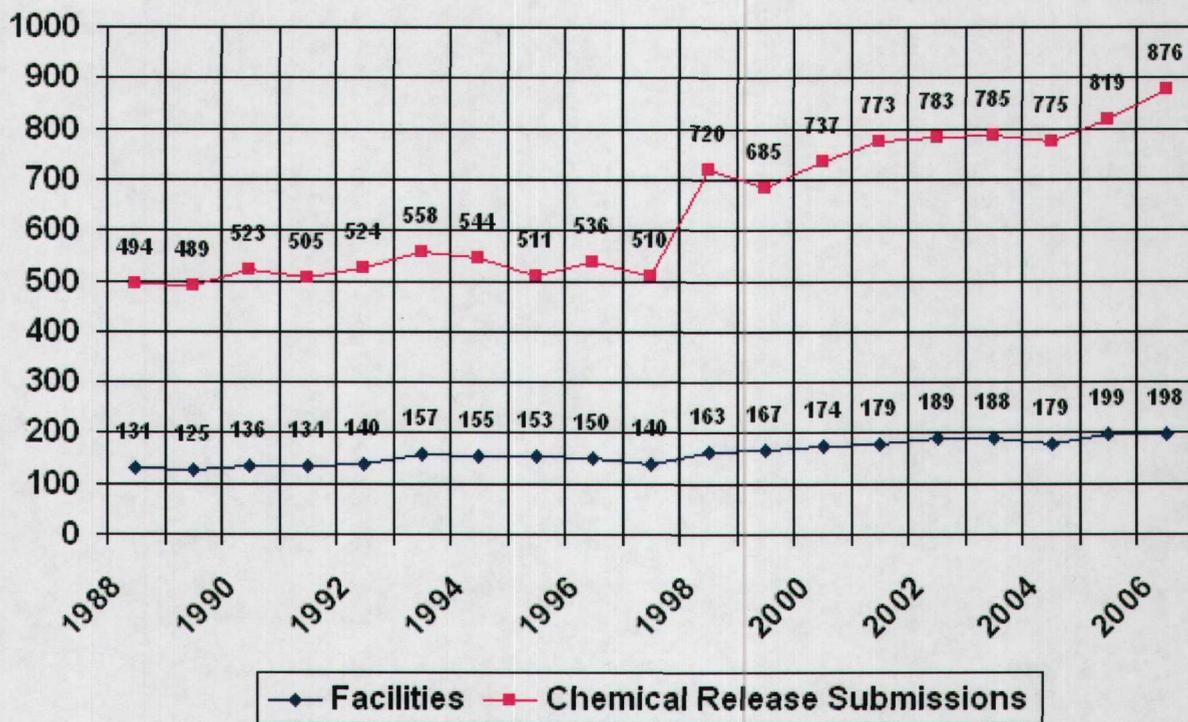


Figure 1

² Wasatch Front is defined to include Counties of Weber, Davis, Salt Lake and Utah.

FACILITY LOCATION

Each facility reports its latitude and longitude as part of the TRI submission. This information permits mapping of TRI facility locations. In Figure 2, each dot represents the location of a TRI facility. For purposes of reporting the Wasatch Front is comprised of Weber, Davis, Salt Lake and Utah Counties. Just less than sixty-six percent of all TRI reporting facilities (134 of 198) are located along the Wasatch Front. Facilities along the Wasatch Front comprise 66 % of all facilities reporting in Utah.

Utah 2006 TRI Facility Locations

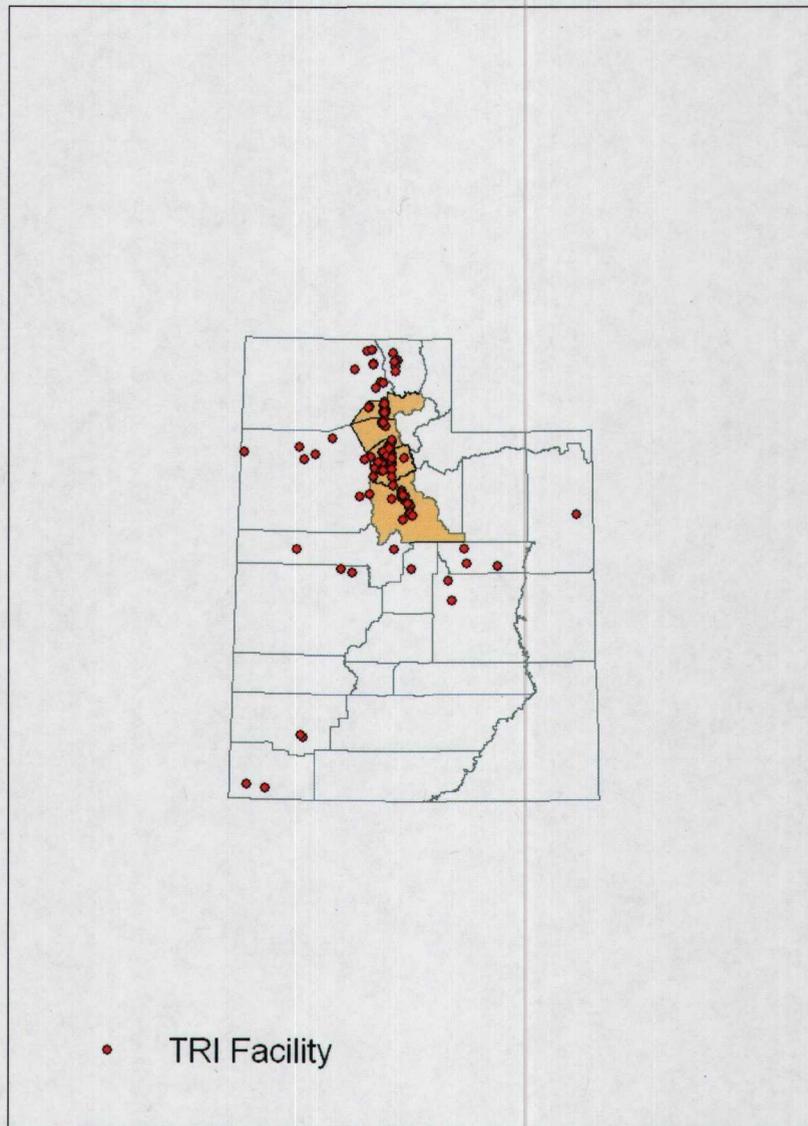


Figure 2

Figure 3 below displays the 2006 TRI reporting by industry sector category. The 198 facilities reporting were categorized into 8 industrial sectors based on Standard Industrial Classification Code groups. Industrial sectors are identified in Figure 3. For 2006, with exception to the catch-all category of *Other*, facilities reporting from the *Primary Metals Industries* sector represent the largest category with 19 facilities.

2006 Utah TRI Facilities - Quantity Reporting By Industrial Sector

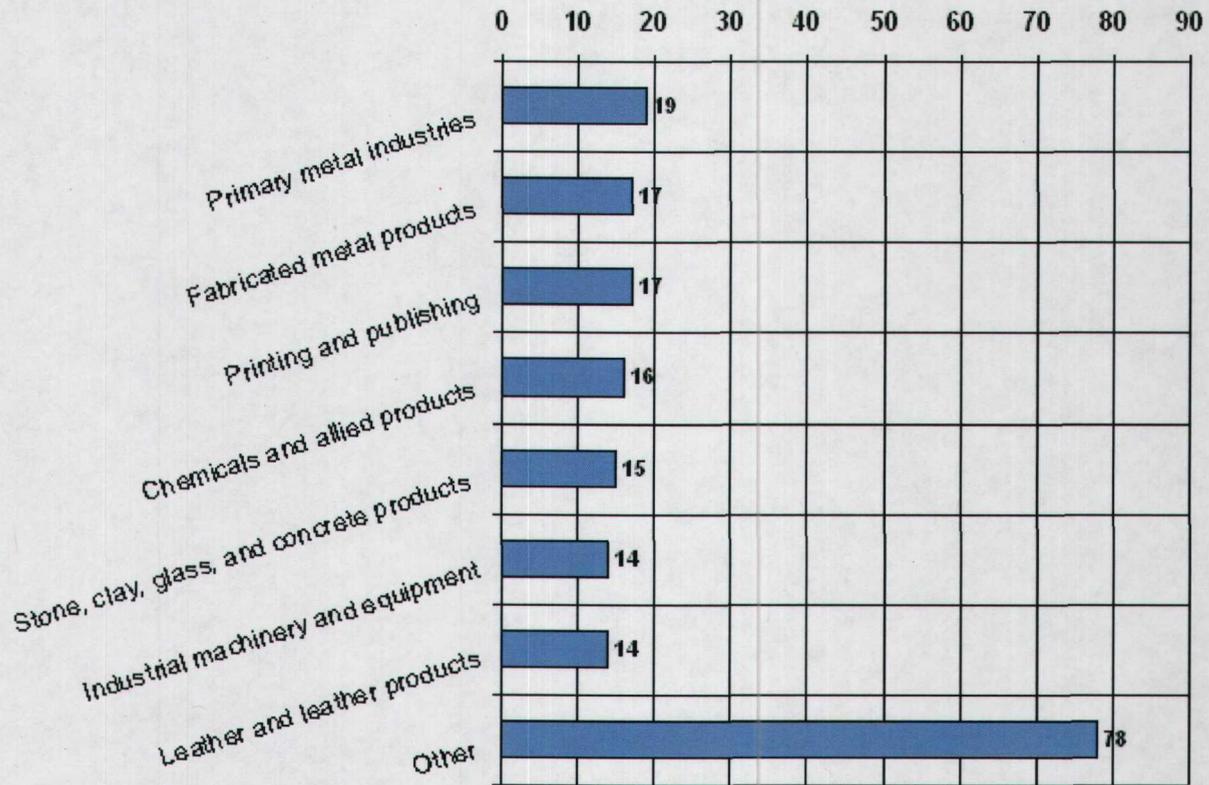


Figure 3

Total Releases

Figure 4 shows the trend for total releases in Utah beginning 1988 through 2006.

Utah TRI Total Releases (Millions of Pounds) 1988-2006

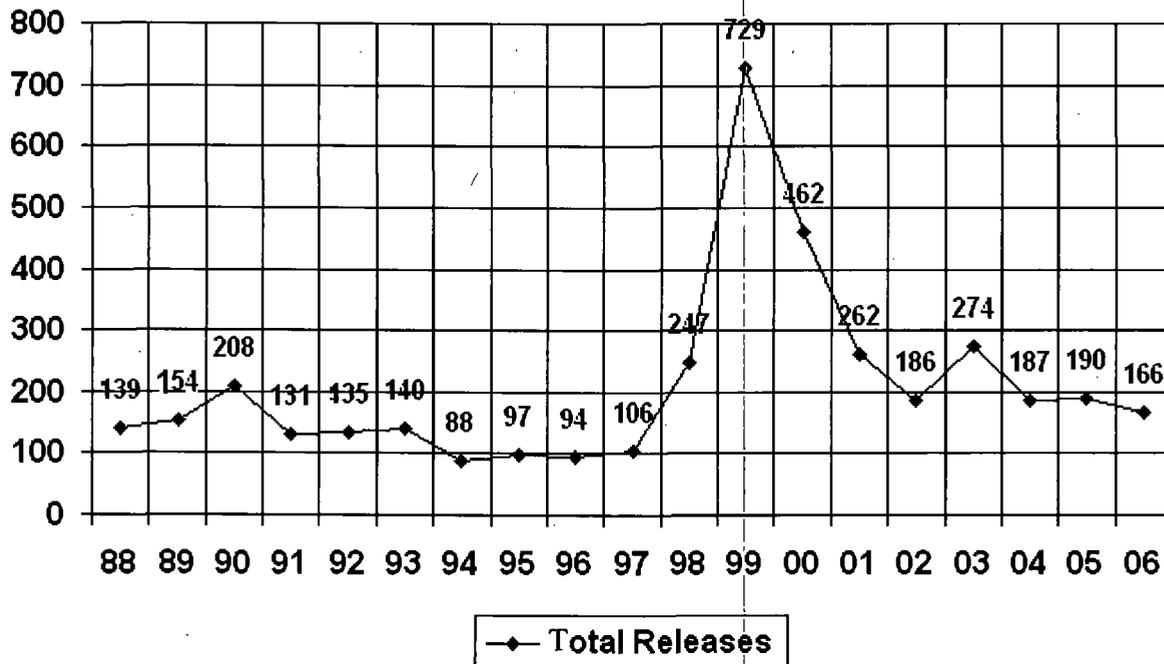


Figure 4

Release totals are typically described under two primary categories: (1) *Total On-Site Disposal or Other Releases*, and (2) *Total Off-Site Disposal or Other Releases*. These categories are further sub-divided as outlined below.

1. Total On-Site Disposal or Other Releases are sub-categorized as:
 - a. Total releases to air;
 - b. Total releases to land;
 - c. Total releases for TSD facilities (as described by RCRA³);
 - d. Total releases for coal-fired electric utilities; and
 - e. Total releases to surface waters;
 - f. Group sub-total.

³ Resource Conservation and Recovery Act (1976).

2. Total Off-Site Disposal or Other Releases (includes transfers to off-site facilities) are sub-categorized as:
 - a. Transfers to POTWs;
 - b. Other transfers off-site;
 - c. Group sub-total.

There is additional descriptive information about release information that is not inherent to the data: (1) for transfers of TRI-listed metals to municipal wastewater treatment plants (POTW), generally, metals pass untreated through conventional treatment plants and are discharged in the plant effluent; and (2) TRI chemicals transferred to off-site facilities and disposed at off-site facilities are regarded as being released to the environment. These quantities are reported both as a transfer and then as an on-site disposal. Data released under the federal Public Data Release describes and accounts for the duplication inherent to the latter point.

Total Releases - Releases reported under from Utah facilities under TRI in report year 2006 totaled 171.4 million pounds. Total releases reported in 2005 were 193.3 million pounds. Releases reported under TRI decreased by 21.9 million representative of an 11.3% decrease.

The distribution among the primary categories, total On-Site Disposal or Other Releases, and total Off-Site Disposal or Other Releases (includes transfers) described above, in terms of pounds released is weighted heavily to the On-Site category. Total on-site releases were reported in the amount of 149.2 million pounds comprising 87.0% of all releases, while total off-site Disposals were reported in the amount of 22.3 million pounds comprising 13% of all releases.

The most significant releases among On-Site Disposal or Other Releases are those reported (in order by total amount) as releases to land and air. Releases to land reported for 2006 totaled 139.2 million pounds comprising 81.2% of total releases in Utah. Total releases to air for the reporting year were 9.9 million pounds.

Total Off-Site Disposal including transfers totaled 22.3 million pounds and represent 13.0% of total releases in Utah for 2006. Total transfers to POTWs were reported at 1.0 million pounds, and shows a decrease of 15.7% from last year. Total transfers reported in 2006 to other off-site locations were reported at 21.2 million pounds.

The changes in annual trend for each primary category show (1) On-Site Disposal and Other Releases decreased 13.3% from last year; and (2) Off-Site Disposal and Transfers increased by 13.0% from last year.

Table 1 lists the top 10 facilities for on-site and off-site releases in 2006. Kennecott Mine, Concentrators & Power Plant, Kennecott Smelter & Refinery facilities, and Nucor Steel were the top three contributing facilities to total reported releases in Utah in 2006.

TABLE 1

TOP 10 Facilities - Total On-site and Off-site Releases

Facility Name	Lbs/Year
1. KENNECOTT UTAH COPPER MINE, CONCENTRATORS; & POWER PLANT	102,523,952
2. KENNECOTT UTAH COPPER SMELTER & REFINERY	17,656,359
3. NUCOR STEEL -A DIVISION OF NUCOR CORPORATION	7,877,372
4. CLEAN HARBORS GRASSY MOUNTAIN, LLC	6,168,824
5. CERROWIRE & CABLE CO.	5,222,544
6. ENERGY SOLUTIONS	5,180,928
7. US MAGNESIUM, LLC	4,387,238
8. PACIFICORP - HUNTINGTON PLANT	2,411,908
9. ATK LAUNCH SYSTEMS - PROMONTORY	2,102,144
10. MARK STEEL CORP, JORDAN RIVER PLANT	2,024,083

Table 2 lists the top 10 on-site and off-site chemical releases. Copper compounds, zinc compounds, and lead compounds constitute the chemicals released in greatest quantities in 2006.

TABLE 2

Top 10 Chemicals - Total On-site and Off-site Chemical Releases

Chemical Name	Lbs/Year
1. COPPER COMPOUNDS	106,581,336
2. ZINC COMPOUNDS	14,784,750
3. LEAD COMPOUNDS	10,335,784
4. COPPER	5,654,555
5. HYDROCHLORIC ACID	4,316,736
6. BARIUM COMPOUNDS	3,514,375
7. CHLORINE	3,330,619
8. ARSENIC COMPOUNDS	2,610,455
9. CHROMIUM COMPOUNDS	2,225,758
10. NITRATE COMPOUNDS	2,049,379

Totals for on-site releases include releases to air, land, and water occurring on-site at the facility, and exclude materials transferred off-site. Table 3 presents the top 10 facility totals for on-site releases.

TABLE 3
Top 10 Facilities - Total On-site Releases

Facility Name	Lbs/Year
1. KENNECOTT UTAH COPPER MINE, CONCENTRATORS, & POWER PLANT	102,523,700
2. KENNECOTT UTAH COPPER SMELTER & REFINERY	17,126,051
3. CLEAN HARBORS GRASSY MOUNTAIN, LLC	6,156,894
4. ENERGY SOLUTIONS	5,180,452
5. US MAGNESIUM, LLC	4,386,302
6. PACIFICORP - HUNTINGTON PLANT	2,411,905
7. ATK LAUNCH SYSTEMS - PROMONTORY	1,887,741
8. BONANZA POWER PLANT	1,676,127
9. INTERMOUNTAIN POWER GENERATING STATION	1,622,213
10. PACIFIC STATES CAST IRON PIPE COMPANY	1,332,625

Table 4 lists the top 10 chemicals for on-site releases.

TABLE 4
Top 10 Chemicals - Total On-site Chemical Releases

Chemical Name	Lbs/Year
1. COPPER COMPOUNDS	105,759,254
2. LEAD COMPOUNDS	9,504,316
3. ZINC COMPOUNDS	6,879,259
4. HYDROCHLORIC ACID	4,316,726
5. BARIUM COMPOUNDS	3,499,106
6. CHLORINE	3,330,619
7. ARSENIC COMPOUNDS	2,582,071
8. CHROMIUM COMPOUNDS	1,911,980
9. NICKEL COMPOUNDS	1,586,596
10. AMMONIA	1,269,637

The differences are not great between totals presented in Table 1 Total Releases (on-site and off-site), and Table 3 total releases on-site. The differences between these two tables are indicative of metals released from POTWs and TRI chemicals transferred off-site for disposal. The reader may infer that the combined volume of wastes transferred to POTWs plus wastes transferred off-site for disposal are relatively low in comparison to volumes that are released on-site.

RELEASES TO AIR

Figure 5 illustrates the trend of total releases to air for years 1988 to 2006. In 2006 releases to air decreased by just less than 1% from 10.0 million pounds in 2005, to 9.9 million pounds.

Utah TRI Releases To Air (Millions of Pounds) 1988-2006

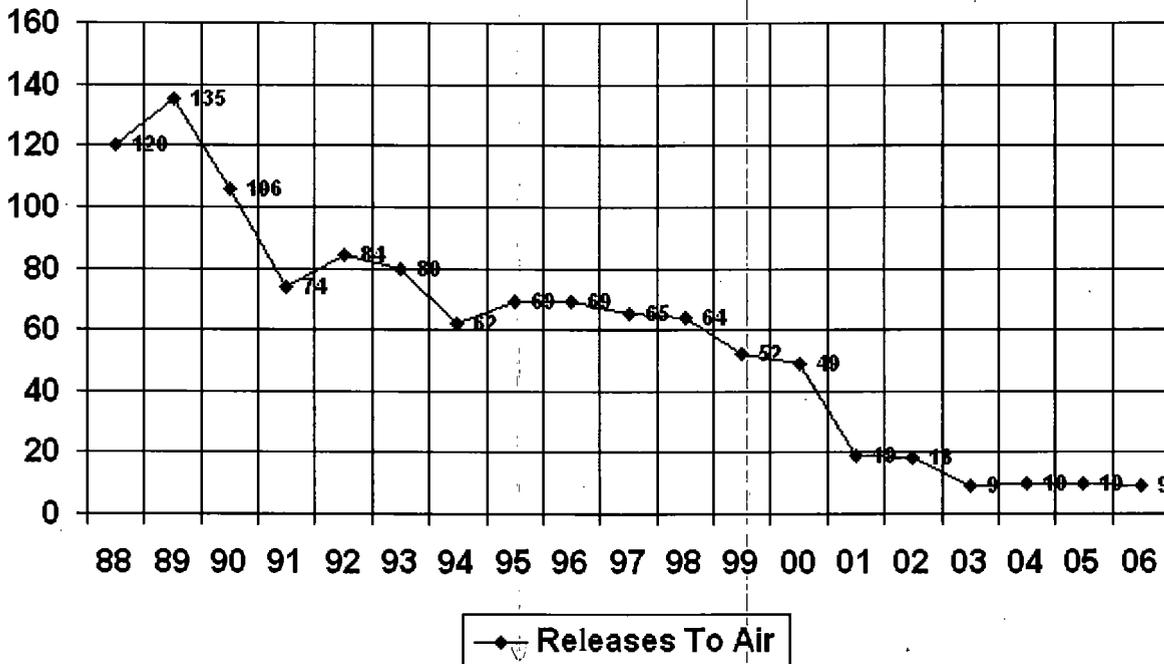


Figure 5

Table 5 provides the top 10 total releases to air by facility.

TABLE 5
Top 10 Facilities - Total Releases to Air

Facility Name	Lbs/Year
1. US MAGNESIUM, LLC	4,380,637
2. ATK LAUNCH SYSTEMS - PROMONTORY	1,678,679
3. PACIFICORP - HUNTINGTON PLANT	1,231,299
4. PACIFICORP - CARBON PLANT	389,592
5. TESORO REFINING AND MARKETING COMPANY	217,369
6. BRUSH RESOURCES INC, MILL	210,488
7. INTERMOUNTAIN POWER GENERATING STATION	163,208
8. KENNECOTT UTAH COPPER SMELTER & REFINERY	146,546
9. PACIFICORP HUNTER PLANT	138,937
10. UTILITY TRAILER MFG. - CLEARFIELD 2	131,734

U.S. Magnesium, ATK Launch Systems-Promontory, and the Pacificorp-Huntington Plant facilities were the primary contributors to total releases to air in 2006. U.S. Magnesium reported a total release to air of 4.4 million pounds. ATK Launch Systems-Promontory reported a total release to air of 1.7 million pounds, and the Pacificorp-Huntington Plant reported a total amount released to air of 1.2 million pounds. For Pacificorp-Huntington, 55% of the total release to air reported is comprised of hydrochloric acid. The hydrochloric acid releases reported by these three facilities comprise 84% of the total amount of hydrochloric acid releases reported to air in 2006. All other facilities reporting releases were below 400,000 pounds.

Table 6 shows the top 10 releases to air by chemical.

TABLE 6
Top 10 Chemicals - Total Releases to Air

Chemical Name	Lbs/Year
1. HYDROCHLORIC ACID	4,283,665
2. CHLORINE	3,330,619
3. HYDROFLUORIC ACID	558,202
4. AMMONIA	426,237
5. SULFURIC ACID	189,040
6. 1,1-DICHLORO-1-FLUOROETHANE	152,008
7. TOLUENE	106,495
8. COPPER COMPOUNDS	92,167
9. XYLENE (MIXED)	90,548
10. METHYLENE CHLORIDE	81,702

The primary contributors to the release of 4.3 million pounds of hydrochloric acid (aerosols only) include industry sectors defined as smelting and refining of non-ferrous metals except copper and aluminum (1.1 million pounds), rocket motor manufacturing (1.7 million pounds), and electric services which includes coal fired power generation (878,000 pounds). These three sectors comprise 84% of the total amount of hydrochloric acid release reported to air for 2006.

U.S. Magnesium

U.S. Magnesium (USM) is located along the southwest side of the Great Salt Lake in Tooele County. USM produces magnesium metal by extraction of magnesium chloride from brines drawn from the lake. Chlorine and hydrochloric acid are produced as by-products of the magnesium extraction process. In 2003 USM implemented process upgrades to improve chlorine recovery and reduce emissions.

Figure 6 shows the annual trend for releases to air reported by USM.

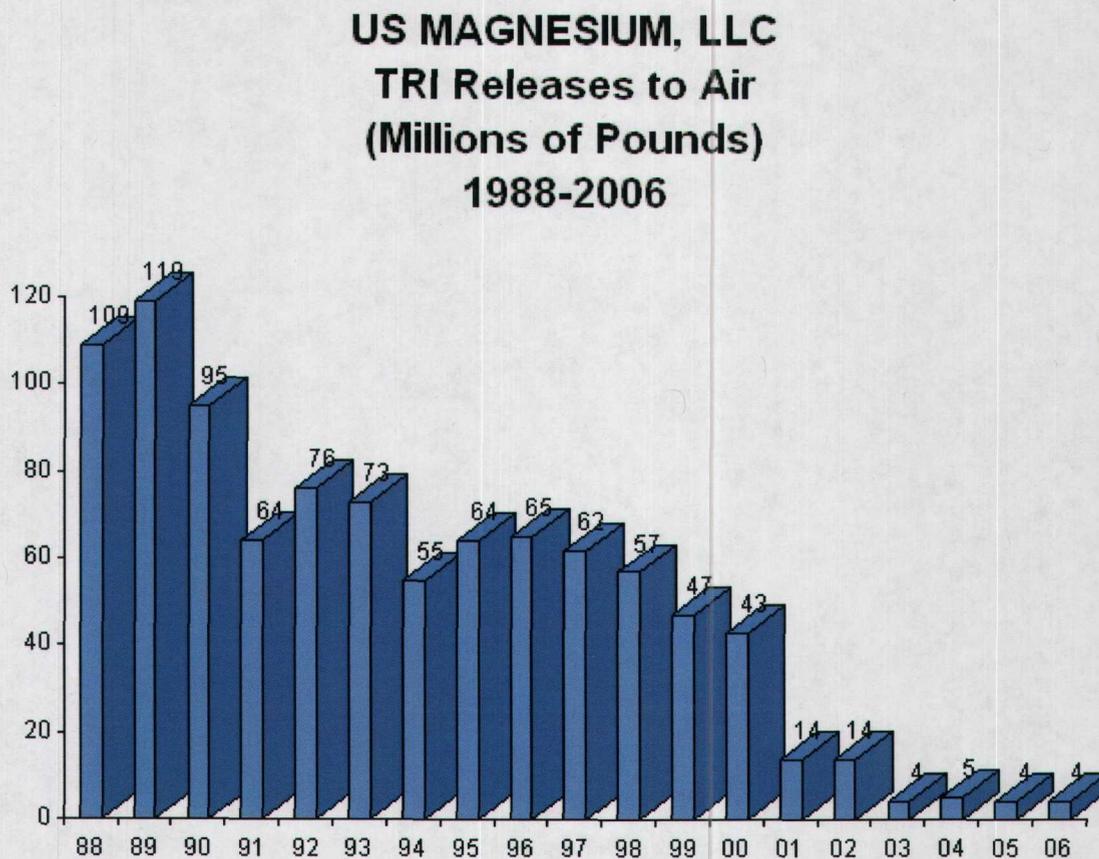


Figure 6

USM reported total releases to air of 4.4 million pounds in 2006 while releases to air were slightly less than 4.1 million pounds in 2005. The 6.1% increase is attributable to an increase in production. The bulk of releases to air by USM consist of chlorine and hydrochloric acid (aerosol forms only). USM calculates release quantities using stack test results and production hours. Total chlorine released to air was 3.3 million pounds. The increase in chlorine released corresponds to an increase in production.⁴

⁴ Communication with US Magnesium (February 21, 2008).

For hydrochloric acid (aerosol forms only), USM reported a release less than 1.1 million pounds in 2006 showing a decrease of 2.7%. The reduction of hydrochloric acid is attributed to updated stack test results in which the test parameters decreased.⁵

USM's ranking nationally has changed dramatically in recent years. USM has moved down from #1 rank in the country (RY2000) for total releases to air to being 62nd.⁶ in RY2005).

ATK Launch Systems – Promontory

For 2006 ATK reported total releases to air in the amount of 1.6 million pounds. Hydrochloric acid (aerosol forms only) accounts for 98.8% of the total amount released to air by ATK. The release of hydrochloric acid (aerosol forms only) is attributed to open bum/open detonation (OBOD) associated with static motor testing.⁷

RELEASES TO LAND

Releases to land include: (1) landfills designed to receive solid waste; (2) surface impoundments for liquid waste; (3) land treatment, incorporating the waste into the soil; or (4) other disposal, such as placing material containing TRI chemicals on land.

Table 7 shows the top 10 facility total releases to land.

TABLE 7
Top 10 Facilities - Total Releases to Land

<u>Facility Name</u>	<u>Lbs/Year</u>
1. KENNECOTT UTAH COPPER MINE, CONCENTRATORS, & POWER PLANT	102,502,530
2. KENNECOTT UTAH COPPER SMELTER & REFINERY	16,973,210
3. CLEAN HARBORS GRASSY MOUNTAEN, LLC	6,156,466
4. ENERGY SOLUTIONS	5,180,452
5. BONANZA POWER PLANT	1,607,628
6. ENTERMOUNTAIN POWER GENERATING STATION	1,459,005
7. PACIFIC STATES CAST IRON PIPE COMPANY	1,302,590
8. PACIFICORP - HUNTINGTON PLANT	1,180,605
9. WESTERN ZIRCONIUM	730,579
10. PACIFICORP HUNTER PLANT	709,897

TRI chemical releases to land comprised 81.2% of total combined on-site and off-site releases reported in 2006. Releases to land decreased 14.1% from 162.0 million pounds in 2005 to 139.2 million pounds in 2006.

Eight of the facilities listed in Table 7 reported an amount in excess of one million pounds. The aggregate sum of releases to land reported by these eight facilities represents about 98.0% of the total releases to land in Utah reported in 2006.

⁵ Communication with US Magnesium (February 21, 2008).

⁶ Query of EPA's web-based TRI program application TRI Explorer executed 1-March-08. Query parameters chosen: Reports by Facility; Year of Data: "2005"; Geographic Location: "All of United States"; All Chemicals; Industry: "All Industries."

⁷ Communication with ATK Launch Systems – Promontory (February 4, 2008).

Table 8 identifies the top 10 chemicals released to land in 2006.

TABLE 8
Top 10 Chemicals - Total Releases to Land

Chemical Name	Lbs/Year
1. COPPER COMPOUNDS	105,665,487
2. LEAD COMPOUNDS	9,491,050
3. ZINC COMPOUNDS	6,864,867
4. BARIUM COMPOUNDS	3,494,528
5. ARSENIC COMPOUNDS	2,578,195
6. CHROMIUM COMPOUNDS	1,908,524
7. NICKEL COMPOUNDS	1,581,346
8. MANGANESE COMPOUNDS	1,257,424
9. AMMONIA	842,400
10. MANGANESE	736,121

In reference to specific chemicals and/or chemical compounds reported released in 2006, copper compounds, lead compounds, zinc compounds, barium compounds, and arsenic compounds occupy the top five positions respectively for chemicals released to land. In 2006 the reported changes for the amounts of: (1) copper compounds increased from 78.3 million pounds to 105.7 million pounds; (2) lead compounds decreased from 43.9 million pounds to 9.5 million pounds; (3) zinc compounds decreased from 21.6 million pounds to 6.7 million pounds; (4) the amount of barium compounds increased from 3.3 million pounds to 3.5 million pounds, and (5) arsenic compounds dropped from 4.8 million pounds to 1.9 million pounds. The aggregate amount of these five chemical categories reported as a release-to-land comprises approximately 92% of all releases to land reported in 2006.

Data reported by Kennecott Utah Copper Mine, Concentrators & Power Plant, Kennecott Utah Copper Smelter & Refinery, and the Energy Solutions facilities show that the chemical released in greatest quantity is copper compounds. Releases reported by these facilities are: Kennecott Utah Copper Mine Concentrators & Power Plant, 98.1 million pounds; Kennecott Utah Copper Smelter & Refinery, 6.1 million pounds, and Energy Solutions 2.4 million pounds.

Following copper compounds in total amount released, seven metals compounds make up the list of chemicals released in greatest abundance. Presented in descending order by amounts reported, these chemicals are: lead compounds, zinc compounds, barium compounds, arsenic compounds, chromium compounds, nickel compounds, and manganese.

Mining

Four mining facilities reported under the TRI program for reporting year 2006:

- Kennecott Utah Copper Mine, Concentrators & Power Plant
- Brush Resources, Inc., Mill
- Kennecott Barneys Canyon Mining Company
- Lisbon Valley Mining Company

Kennecott Facilities

Kennecott Utah Copper (KUC) operates through three facilities:

- (1) Barney's Canyon Mine (KUC-Barney's);
- (2) Mine, Concentrators & Power Plant (KUC-Mine); and
- (3) Smelter & Refinery (KUC-Smelter).

Primary operations for each facility respectively are gold ore mining, copper ore and nickel ore mining, and smelting and refining. The KUC-Mine is one of the world's largest open pit mines. KUC conducts extensive mining, milling, smelting, and refining operations in western Salt Lake County. The KUC-Mine facility extracts millions of tons of overburden, waste rock, and ore during operations annually. Ore is concentrated and shipped by pipeline to the smelter, which produces copper, and gold. Sulfuric acid is also produced out of the process.

The single most significant category of release reported by the KUC-Barney's facility is releases to air. However, the category contributes a minor quantity relative to overall volumes reported by KUC in its entirety. The KUC-Mine and KUC-Smelter facilities contribute the bulk of releases to air and land, therefore, most discussion presented in this section represents data reported by the latter two.

For reporting year 2006, the bulk of total releases to land reported by KUC facilities were comprised of compounds of copper, lead, zinc, barium, arsenic, and in lesser amounts compounds of chromium, manganese, and nickel.

For RY2006 the KUC-Mine and KUC-Smelter facilities reported total releases to land of 102.5 million pounds and 17.0 million pounds respectively for a sum total of 119.5 million pounds. This amount accounts for 85.9% of total amount of releases reported to land in Utah. The KUC facilities reported a combined release to land amount of 127.0 million pounds in 2005 showing a 5.9% decrease.

Kennecott Copper Mine Concentrators and Power Plant - Figure 7 shows the annual trend for releases to land from the KUC- Mine facility.

**KENNECOTT UTAH COPPER MINE,
CONCENTRATORS, & POWER PLANT
TRI Releases to Land
(Millions of Pounds)
1998-2006**

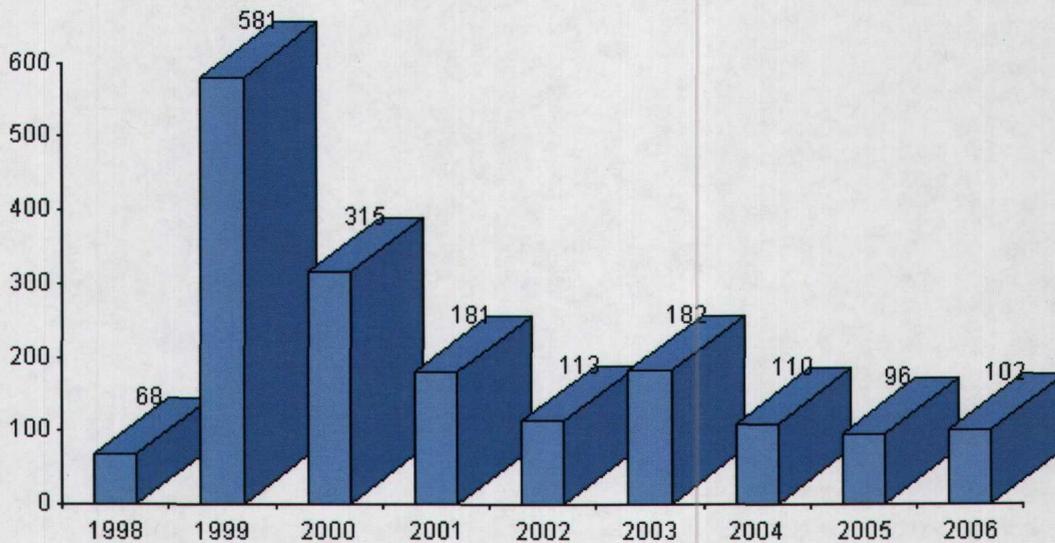


Figure 7

Chemical groups representing the highest total releases to land in 2006 from the KUC-Mine, in descending order by amount reported are copper compounds (98.1 million pounds), lead compounds (0.7 million pounds), and zinc compounds (1.6 million pounds).

The total release to land by KUC increased by 5.7% from 97.0 million pounds in 2005 to 102.5 million pounds in 2006. KUC-Mine recorded an estimated 6% increase in total ore mined between 2005 and 2006. KUC-Mine attributes the increase in reported releases to the increased volume of ore mined. Naturally occurring fluctuations in the concentration of TRI constituents in the overburden removed and ore mined are also observed and may affect the data.⁸

⁸ Communication with Kennecott 2/26/08.

Kennecott Copper Smelter and Refinery – Figure 8 shows the trend in releases to land originating from the KUC-Smelter facility.

KENNECOTT UTAH COPPER SMELTER & REFINERY TRI Releases to Land (Millions of Pounds) 1988-2006

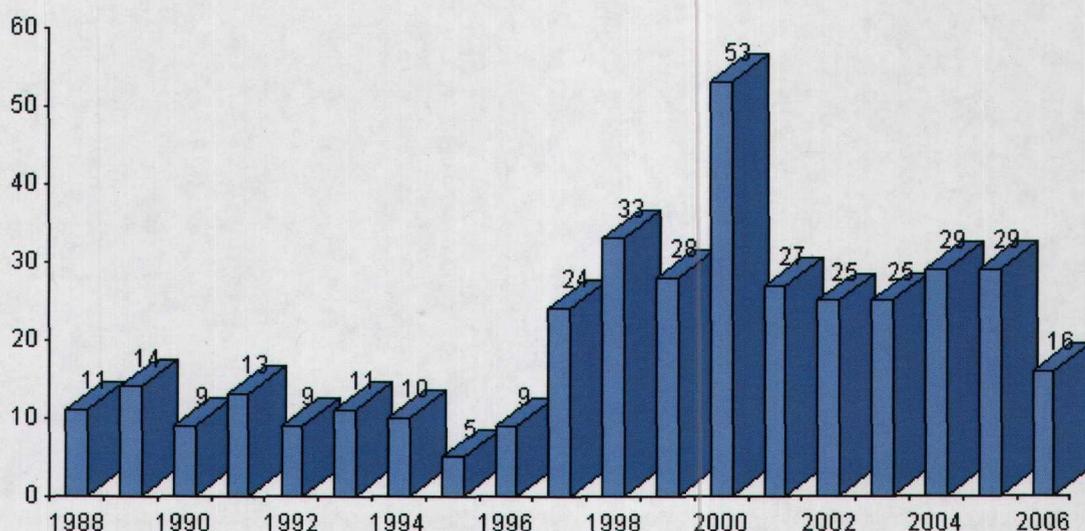


Figure 8

KUC-Smelter files a separate TRI report from the KUC-Mine facility, and has been doing so since 1987. Releases to land decreased by 43.3% from 30.0 million pounds in 2005 to 17.0 million pounds reported in 2006. KUC reports this is due primarily to a decrease in slag tailings transferred to the tailings impoundment and concentration of TRI constituents within the land releases. The amount of material transferred decreased by 22%. Finally, the initial concentration of TRI constituents in ore was lower, and the concentration of TRI constituents decreased as a result of improved recovery. It is normal to observe fluctuations in the natural concentration of all mineral constituents as different portions of the ore body are being mined.⁹

Chemical groups representing the highest total releases to land (above 1 million pounds) in 2006 from the KUC-Smelter facility (presented in descending order by amount) are copper compounds, 6.1 million pounds; zinc compounds, 4.0 million pounds; lead compounds, 2.6 million pounds; and arsenic compounds, 2.4 million pounds.

⁹ Communication with Kennecott 2/26/08.

Waste Disposal Facilities

Waste disposal facilities that treat, store, and/or dispose of hazardous waste are subject to EPCRA Section 313 reporting requirements. Subtitle C of the Resource Conservation and Recovery Act and the Utah Solid and Hazardous Waste Act regulate these facilities. The EPA TRI definition of a *release* to land includes the placement of TRI chemicals into landfills, including landfills specifically constructed under requirements of RCRA and Utah Law to contain the waste inside the landfill and preclude a release.

Facilities in this class reporting releases to land in 2006 include:

- Clean Harbors Grassy Mountain, LLC
- Energy Solutions

Table 9 shows the amounts released to land for each facility respectively in 2006.

TABLE 9
Waste Disposal Facility Releases to Land

Facility Name	Lbs/Year
1. CLEAN HARBORS GRASSY MOUNTAIN, LLC	2,863,067
2. ENERGY SOLUTIONS	5,180,452

Virtually 100% of the releases reported by these facilities were reported as releases to land.

Table 10 lists the top 10 TRI chemical totals released to land from waste disposal facilities. Releases to land are comprised of metals compounds, primarily lead, copper, and zinc, with lesser amounts of a variety of other metals, metals compounds, and polychlorinated biphenyls.

TABLE 10
Top 10 Chemicals - Releases to Land
From Waste Disposal Facilities

Chemical Name	Lbs/Year
1. LEAD COMPOUNDS	6,102,454
2. COPPER COMPOUNDS	1,424,413
3. NICKEL COMPOUNDS	434,126
4. CHROMIUM COMPOUNDS	430,935
5. POLYCHLORINATED BIPHENYLS (PCBS)	375,644
6. CADMIUM	328,604
7. COPPER	288,205
8. CYANIDE COMPOUNDS	286,303
9. MANGANESE	278,932
10. ZINC COMPOUNDS	274,597

CLEAN HARBORS GRASSY MOUNTAIN, LLC
TRI Releases to Land
(Millions of Pounds)
1998-2006

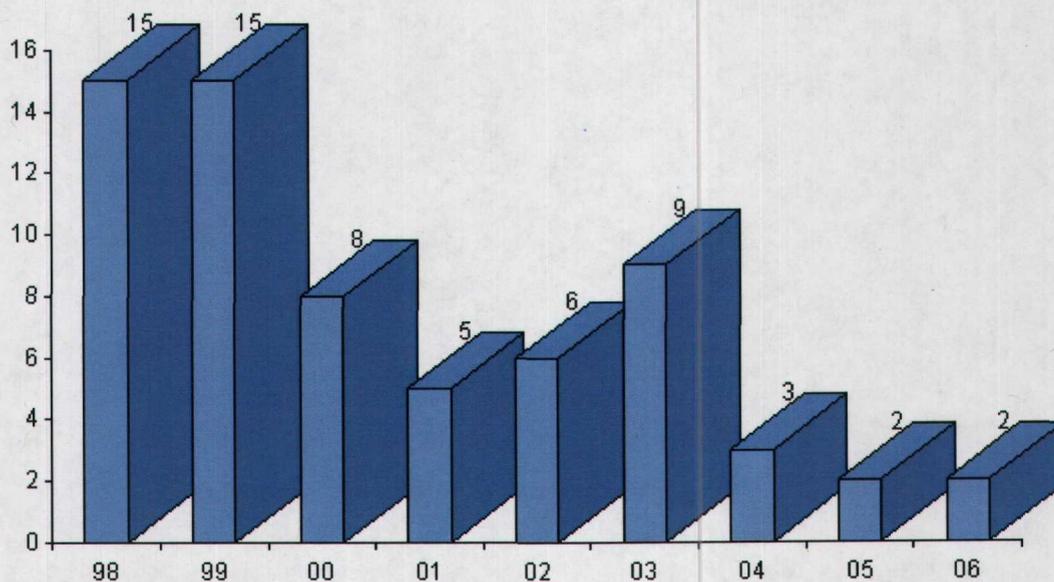


Figure 9

Figure 9 shows the trend of releases to land reported by the Clean Harbors Grassy Mountain facility. Releases to land reported by Grassy Mountain increased by 32% from 2.2 million pounds reported in 2005 to 2.9 million pounds in 2006.

ENVIROCARE OF UTAH, LLC.
TRI Releases to Land
(Millions of Pounds)
1998-2006

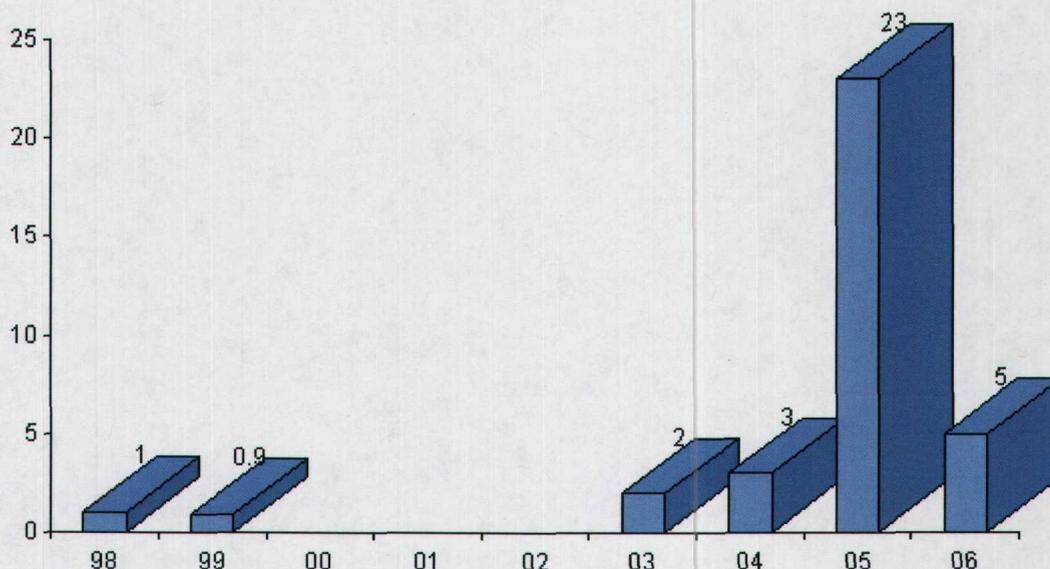


Figure 10

Figure 10 shows the trend with in releases to land reported by Energy Solutions. Energy Solutions reported releases to land of 5.2 million pounds in 2006. The 23.4 million pounds reported in 2005 originated from wastes received from a single generator. A large remedial project by the Department of Energy to decommission a DOE facility resulted in the increase. The wastes consisted largely of debris materials derived from the demolition of component infrastructure from the DOE facility. The decrease shown by Energy Solutions in reporting year 2006 was manifest because the DOE project ended in 2005 and exhibits a 78% decrease.

For reporting year 2006 the amount of waste reported by Energy Solutions as a release to land returned to a level symmetrical with the facility's trend prior to the 2005 spike. In 2006 copper compounds and lead compounds comprised 1.3 million pounds, and 2.4 million pounds respectively of the total 5.2 million pounds reported released to land by Energy Solutions. The remaining 1.5 million pounds consists of nickel compounds, manganese, chromium compounds, zinc compounds, asbestos, barium, and smaller incremental amounts of other wastes.

Electric Utilities

Electric utilities that burn coal or oil for electric energy production have been required to submit TRI reports since 1998. Table 11 shows electric utility facilities reporting in 2006.

TABLE 11
Coal-Fired Electric Utility Releases to Land

Facility Name	Lbs/Year
1. BONANZA POWER PLANT	1,607,628
2. INTERMOUNTAIN POWER GENERATING STATION	1,459,005
3. PACIFICORP - CARBON PLANT	102,657
4. SUNNYSIDE COGENERATION ASSOCIATES	17,442

Releases to land reported from Electric Utilities totaled 3.2 million pounds in 2006, showing a 14.0% increase over the 2.8 million pounds reported in 2005.

Table 12 below provides the list of chemicals released to land by the coal-fired electric utility sector.

TABLE 12
Chemical Releases to Land
From Coal-Fired Electric Utilities

Chemical Name	Lbs/Year*
1. BARIUM COMPOUNDS	2,291,601
2. CHROMIUM COMPOUNDS	210,924
3. MANGANESE COMPOUNDS	133,064
4. LEAD COMPOUNDS	92,047
5. COPPER COMPOUNDS	91,581
6. ZINC COMPOUNDS	90,000
7. ARSENIC COMPOUNDS	81,000
8. VANADIUM COMPOUNDS	77,409
9. NICKEL COMPOUNDS	34,700
10. ANTIMONY COMPOUNDS	26,200
11. COBALT COMPOUNDS	20,500
12. SELENIUM COMPOUNDS	19,400
13. LEAD	17,349
14. MERCURY COMPOUNDS	607
15. AMMONIA	250
16. MERCURY	93
17. DIOXIN AND DIOXIN-LIKE COMPOUNDS (grams)	7*

* grams

RELEASES TO SURFACE WATER

TRI-reported releases to surface water in Utah are a small percentage of total releases reported under TRI. Since only a small percentage of industries in Utah are required to submit TRI reports, this report identifies only a portion of the total chemical discharges to surface water bodies. However, in addition to TRI reports, many facilities are also required to submit discharge monitoring reports to the Utah Division of Water Quality which provide additional information on chemical concentrations and chemical amounts released to surface water.

In 2006, facilities reporting TRI chemical releases to surface waters reported a total of 101,000 pounds. Releases to surface waters increased by 85.2% from 55,000 pounds reported in 2005. Table 13 provides the list of the top 10 facilities that released TRI chemicals to surface waters for this reporting year.

TABLE 13
Top 10 - Facility Releases to Surface Water

Facility Name	Lbs/Year
1. CHEVRON PRODUCTS COMPANY- SALT LAKE REFINERY	85,560
2. KENNECOTT UTAH COPPER MINE, CONCENTRATORS, & POWER PLANT	8,316
3. KENNECOTT UTAH COPPER SMELTER & REFINERY	6,294
4. VALMONT COATINGS - INTERMOUNTAIN GALVANIZING	170
5. USA INDUSTRIES	157
6. PACIFICORP - CARBON PLANT	80
7. PACIFIC STATES CAST IRON PIPE COMPANY	62
8. CERROWIRE & CABLE CO.	39
9. NUCOR STEEL -A DIVISION OF NUCOR CORPORATION	35
10. RUBBER ENGINEERING	22

Table 14 provides the top 10 chemicals released to surface water in 2006.

TABLE 14
Top 10 - Chemical Releases to Surface Water

Chemical Name	Lbs/Year
1. NITRATE COMPOUNDS	83,500
2. NICKEL COMPOUNDS	3,454
3. ZINC COMPOUNDS	2,283
4. COPPER COMPOUNDS	1,600
5. SELENIUM COMPOUNDS	1,598
6. XYLENE (MIXED)	1,200
7. AMMONIA	1,000
8. ARSENIC COMPOUNDS	964
9. MANGANESE COMPOUNDS	760
10. CHROMIUM COMPOUNDS	503

The bulk of releases to surface waters were reported by Chevron Products Company. The facility reported about 85% of the total releases to surface water. Chevron attributes this increase to the process completed last year to renew the facility's NPDES permit. Chevron re-evaluated nitrate compounds concentrations in the effluent stream release to surface waters and adjusted the parameters of the permit. As a result of the adjustment the amount of nitrate compounds calculated released by Chevron increased from 34,000 pounds in 2005 to 83,000 pounds in 2006.

Kennecott facilities, KUC Mine, Concentrators and Power Plant, and KUC Smelter and Refinery reported about 8.3% and 6.2% respectively of the total releases to surface waters. Nitrate compounds comprised 82.8% of the total releases for the year.

TRANSFERS TO PUBLICLY OWNED TREATMENT WORKS

POTWs are publicly owned wastewater treatment plants designed to treat sanitary sewage. They may also receive industrial wastewater. TRI "transfers to POTWs" identify the annual total amount of TRI chemicals discharged to POTW facilities.

Total releases to POTWs decreased by 15.7% from 1.2 million pounds in 2005 to 1.0 million pounds in 2006.

Table 15 identifies the top 10 facilities that released chemicals to POTWs during 2006.

TABLE 15
Top 10 - Facility Transfers to POTWs

Facility Name	Lbs/Year
1. EASTON TECHNICAL PRODUCTS	180,804
2. FUTURA INDUSTRIES	141,170
3. TYCO PRINTED CIRCUIT GROUP, LP., LOGAN DIVISION	120,858
4. DANNON COMPANY, THE	104,462
5. GENEVA NITROGEN LLC	94,700
6. FAIRCHILD SEMICONDUCTOR	87,557
7. MEADOW GOLD DAIRY	44,191
8. HOLLY REFINING & MARKETING COMPANY-WOODS CROSS	41,871
9. SMITHS FOOD & DRUG DAIRY DIVISION OF KROGER CORPORATION	39,041
10. PILKINGTON METAL FINISHING LLC 2	34,201

Table 16 lists top chemical transfers to POTWs during 2006. Nitrate compounds accounts for 80.7% of all releases to POTWs while ammonia accounts for 8.2% of all releases to POTWs for the year.

TABLE 16
Top 10 - Chemicals Transferred to POTWs

Chemical Name	Lbs/Year
NITRATE COMPOUNDS	820,086
AMMONIA	83,702
GLYCOL ETHERS	48,959
NITRIC ACID	42,779
TOLUENE	6,921
XYLENE (MIXED)	5,007
BENZENE	4,389
1,2,4-TRIMETHYLBENZENE	2,501
DIETHANOLAMINE	1,090
COPPER COMPOUNDS	252

TRI-reported releases to POTWs do not include information concerning the rate of release or concentration of chemicals in the release. However, State and Federal law requires industrial facilities exceeding federally established chemical concentrations in wastewater to operate industrial pretreatment equipment to reduce such concentrations below harmful levels before discharging to the POTWs.

UTAH FACILITY TRANSFERS TO OTHER OFF-SITE LOCATIONS

Transfers to “other off-site” locations are transfers of TRI chemicals to facilities other than POTWs. Often these facilities include chemical recyclers and waste disposal sites. If the chemical is disposed of at these facilities, it is considered a release to the environment. The material transferred may or may not be classified a “hazardous waste”, but it contains a listed TRI chemical.

Table 17 lists the top 10 facilities that transferred chemicals to off-site locations in 2006. The total amount of TRI chemicals transferred off-site increased by 6.3% from 20.0 million pounds in 2005 to 21.2 million pounds in 2006.

TABLE 17
Top 10 - Facilities Transferring Chemicals Off-site

Facility Name	Lbs/Year
1. NUCOR STEEL -A DIVISION OF NUCOR CORPORATION	7,868,754
2. CERROWIRE & CABLE CO.	5,222,505
3. MARK STEEL CORP, JORDAN RIVER PLANT	2,024,070
4. CLEAN HARBORS ARAGONITE, LLC.	1,272,579
5. JORDAN RIVER GALVANIZING	927,177
6. KENNECOTT UTAH COPPER SMELTER & REFINERY	530,307
7. DAIRY FARMERS OF AMERICA, INC. - AMALGA	348,200
8. STERIGENICS EO, INC	262,934
9. HEXCEL CORPORATION	251,349
10. ATK LAUNCH SYSTEMS, PROMONTORY	214,403

Transfers reported from the first four facilities listed in Table 17 comprise 77.4% of the entire amount of waste transferred in 2006.

Table 18 lists the top 10 chemicals transferred off-site. As indicated, zinc compounds, copper, comprise the bulk of the chemicals transferred to off-site facilities during 2006.

TABLE 18
Top 10 - Chemicals Transferred to Off-site Facilities

Chemical Name	Lbs/Year
1. ZINC COMPOUNDS	7,905,472
2. COPPER	5,299,230
3. CHROMIUM	923,261
4. LEAD COMPOUNDS	831,438
5. NICKEL	827,484
6. COPPER COMPOUNDS	821,829
7. MANGANESE	773,591
8. MANGANESE COMPOUNDS	711,658
9. NITRATE COMPOUNDS	413,449
10. ALUMINUM	344,334

Figure 11 displays how chemicals were managed after being transferred from Utah facilities in 2006. The graphic shows that 51% of chemicals were transferred for disposal, 48% were transferred for recycling, and the remaining percentage point was transferred for treatment and energy recovery.

Utah 2006 TRI Chemicals Transferred Material Disposition by Disposition Type

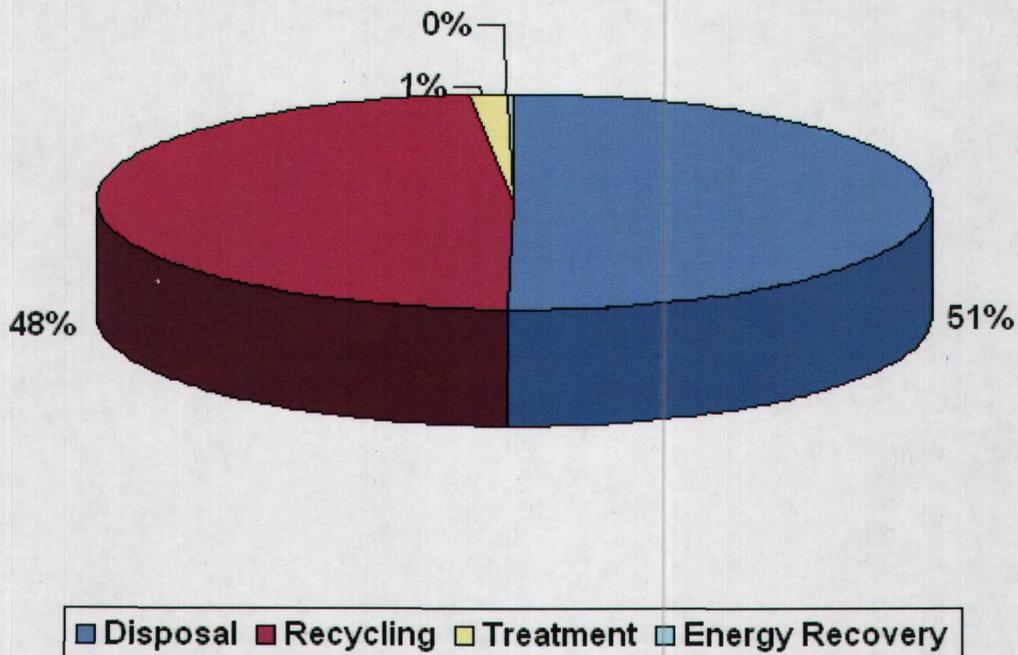


Figure 11

Figure 12 depicts the percentages of chemicals transferred in 2006 to various states. Transfers off-site include transfers to facilities both inside and outside of Utah. Approximately 21.2 million pounds of wastes were transferred off-site in 2006. Idaho received 72%, Utah received 21%, and California received 4%, while the remaining 3% was transferred to other states.

2006 Utah TRI Chemical Transfers - Material Disposition By State

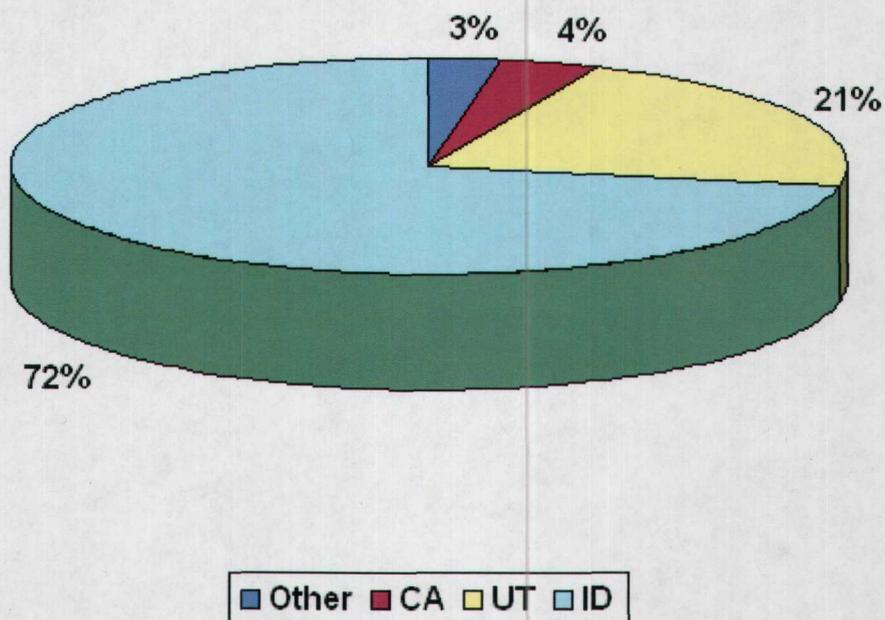


Figure 12

Figure 13 shows the distribution of releases by media in millions of pounds. The releases to land in 2006 were the highest at 139.2 million pounds (92%) of all chemicals reported were released. Releases to air and water made up the remaining 7% and 1% respectively.

Utah 2006 TRI Total Releases By Media

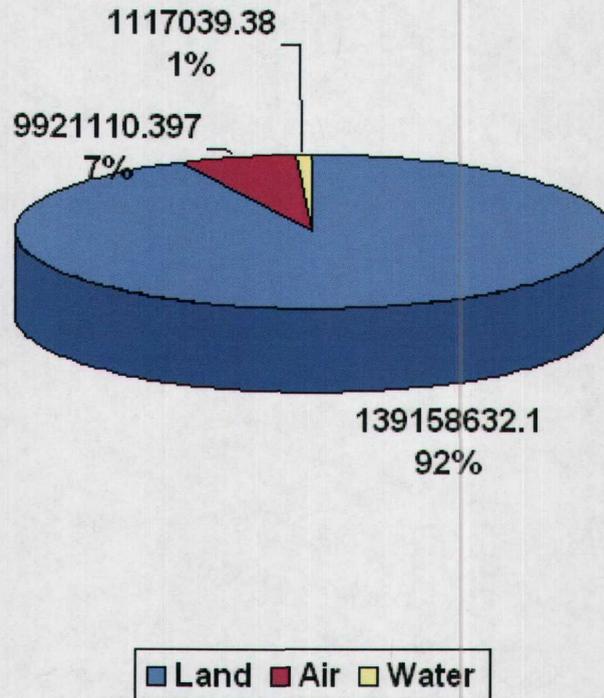


Figure 13

PERSISTENT BIOACCUMULATIVE TOXIC (PBT) CHEMICALS

In October 1999 EPA published a final rule (64 FR 58666) adding seven chemicals and two chemical compound categories to the list that meet the criteria as persistent and bioaccumulative toxic chemicals subject to reporting under EPCRA Section 313. Dioxin and dioxin-like compounds and polycyclic aromatic compounds (PACs) were the two chemical compound categories added. Under the 1999 rule, EPA also lowered the reporting thresholds for the dioxin and dioxin-like compounds chemical category to 0.1 gram.

Table 19 shows the 18 facilities in Utah reporting releases in 2006 of dioxin and dioxin-like compounds and the amount of these chemicals released by each facility.

TABLE 19
Facilities Reporting PBT
Dioxin and Dioxin-like Compound Releases
(Units in Grams)

<u>Facility Name</u>	<u>To Air</u>	<u>To Land</u>	<u>TOTAL Release</u>
1. CLEAN HARBORS ARAGONITE, LLC.	45.13	3 0.00	45.13
2. BONANZA POWER PLANT	3.63	0.00	3.63
3. US MAGNESIUM, LLC	3.09	4332.70	4335.79
4. INTERMOUNTAIN POWER GENERATING STATION	2.05	7.07	9.12
5. PACIFICORP HUNTER PLANT	0.70	0.00	0.70
6. SUNNYSIDE COGENERATION ASSOCIATES	0.66	0.00	0.66
7. KENNECOTT - MINE, CONCENTRATORS, & POWER PLANT	0.40	0.00	0.40
8. PACIFICORP - HUNTINGTON PLANT	0.40	0.00	0.40
9. ALCOA EXTRUSIONS, INC.	0.28	0.00	0.28
10. GRAYMONT WESTERN US INC., CRICKET MTN LIME PRODUCTION	0.25	0.00	0.25
11. ASH GROVE CEMENT COMPANY	0.13	0.00	0.13
12. PACIFICORP - CARBON PLANT	0.10	0.00	0.10
13. CHEVRON PRODUCTS COMPANY- SALT LAKE REFINERY	0.10	0.00	0.10
14. HOLCIM (US) INC., DEVIL'S SLIDE PLANT	0.08	0.00	0.08
15. TESORO REFINING AND MARKETENG COMPANY	0.03	0.00	0.03
16. KENNECOTT - SMELTER & REFINERY	0.00	0.00	0.00
17. WESTERN ZIRCONIUM	0.00	0.14	0.14
18. HOLLY REFINING & MARKETING COM PANY-WOODS CROSS	0.00	0.00	0.00
TOTAL RELEASE	57.03	4339.91	4396.94

For reporting year 2006, 18 facilities in Utah reported a total release of 4,396.94 grams of dioxin and dioxin-like chemicals. The total amount of dioxin and dioxin-like chemicals reported released in 2005 was 4350.98 grams for an overall increase of 1.1%. 98.7% of the total amount released was reported as releases to land with the remaining percentage reported as releases to air. The increase reported for dioxin and dioxin-like compounds in 2006 is attributable entirely to releases reported to air. No dioxins were reported being released to surface water.

SUMMARY

Changes recognized in the Toxic Release Inventory data for reporting year 2006 in relation to reporting year 2005 may be summarized as follows:

- *Total On-site and Off-site Releases* decreased by 11.3%. Total releases reported for 2006 in Utah were 171.4 million pounds. Total releases reported in 2005 were 193.4 million pounds representing a reduction of 21.9 million pounds in 2006.
- *Total Releases to Air* decreased by 0.9% in 2006. For releases to air in 2006, the chemicals ranked first and second for quantities released are hydrochloric acid (aerosol forms only) and chlorine respectively.
- *Total Releases to Land* decreased by 14.1% from 162.1 million pounds in 2005 to 139.2 million pounds in 2006. Releases to land reported by Kennecott facilities comprise 85.9% of the total amount reported as releases to land in Utah in 2006. Kennecott releases to land decreased by 7.5 million pounds in 2006. Energy Solutions reported an 18.2 million pound decrease in 2006, a decrease of 77.8%. The 22.9 million pound amount reported by Energy Solutions in 2005 was attributable to a unique federal DOE cleanup project completed in 2005.
- *Total Releases to Surface Water* increased by 84.6% from 54,600 pounds in 2005 to 100,700 pounds in 2006. Most of the increase is attributable to the amount of nitrate compounds reported by Chevron Products Company. As a result of the NPDES renewal process, the combination of an increase in concentration (of nitrates), and flow rate of the production effluent to surface waters from Chevron contributed to the increase in nitrates reported.
- *Total Transfers to Publicly Owned Treatment Works* decreased by 15.7% from 1.2 million pounds in 2005 to 1.0 million pounds in 2006.
- *Transfers Offsite* to treatment, storage & disposal facilities, which typically include chemical recyclers and waste disposal facilities, increased slightly by 6.3% - from 20.0 million pounds in 2005 to 21.2 million pounds in 2006.
- The most notable PBT chemical category is dioxin and dioxin-like compounds. Dioxin and dioxin-like compounds are unique in that it is the only chemical/chemical category throughout the TRI program in which the releases are reported in grams. Releases of PBT chemicals, dioxin and dioxin-like compounds, indicate a slight increase by 0.15% from 4,351 grams in 2005 to 4397grams in 2006. Releases to land constitute 98.7% of all Dioxin and dioxin-like chemicals released.